

REMARKS

Favorable reconsideration is respectfully requested.

The claims are 8-11. Claims 8-11 are currently amended. Claims 1-7 are cancelled.

The reactive gas dissolution time amendment to claim 8 is supported on page 7, first full paragraph of the specification, and in U.S. 7,105,092 (col. 6, lines 41-42) which is the English equivalent of JP 2002-212598 cited at page 7, line 5, of the specification.

The remaining amendments to claims 8-11 are editorial and self-explanatory.

The Examiner objects to the specification over a number of informalities described on page 2 of the Official Action and the specification is currently amended to address each of the informalities identified by the Examiner. The specification has also been amended at page 7, line 5, to indicate that U.S. 7,105,092 is the English equivalent of JP 2002-212598.

The Examiner objects to Figure 2 asserting that it should be designated by a legend such as "Prior Art". A Replacement Sheet for Figure 2 is attached which amends Figure 2 as suggested by the Examiner.

No new matter is added.

Claims 8-11 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

Claims 8 and 10 are currently amended to address each of the issues raised by the Examiner.

Claims 8-11 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Claim 8 is currently amended to address this rejection.

Claims 8-11 are rejected under 35 U.S.C. § 102(e) as being anticipated by Christodoulatos et al. (U.S. 6,752,926).

Applicants respectfully traverse this rejection.

The present invention is directed to a process of cleaning waste water under pressure, comprising dissolving a reactive gas containing oxygen using, in part, a line atomizer which generates ultrasonic waves and cavitations. The method further comprises introducing the gasified solution into a reaction vessel and treating aerobic microorganisms in the reaction vessel with the reactive gases. The pressure in the reaction vessel is maintained such that a decreasing concentration of dissolved gas in the liquid is maintained.

However, the methods taught by Christodoulatos et al. do not disclose or suggest employing a line atomizer having the function of generating ultrasonic waves and cavitations so as to form ultrafine bubbles having a bubble size of 1 nm to 300 μm as presently claimed. The membrane (34) disclosed by Christodoulatos et al. provides for the formation of bubbles having a bubble size of about 1 mm. This is totally different from the line atomizer defined by the present invention.

Accordingly, Christodoulatos et al. does not disclose or suggest claims 8-11, as amended, and this rejection should be withdrawn.

No further issues remaining, allowance of this application is respectfully requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact undersigned at the telephone number below.

Respectfully submitted,

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